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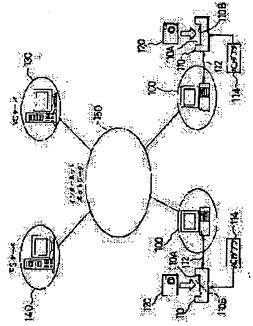
(71)Applicant : FUJI PHOTO FILM CO LTD

(72)Inventor : TERADA MASAHIRO

(54) VIDEO CONFERENCE SYSTEM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a video conference system that eliminates the need for complicated operations, enabling a user to simply able to take part in a video conference.

SOLUTION: The video conference system comprises user PCs 100 of users, digital cameras 120 each connected to each user PC 100 via a cradle 110, a video conference server 130, and the Internet 150, that interconnects the user PCs 100 and the video conference server 130. Each user PC 100 has a video conference program for the video conference, when the digital camera 120 is loaded to the cradle 110 and connection of the digital camera 120 to the user PC 100 is a two-way communication available state is detected, the video conference program is automatically started and a moving image photographed by both the digital cameras 100 of both speech parties is displayed on display devices of both the user PCs 100 to enable video conference.

LEGAL STATUS

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1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1] A communication network is minded. The computer of each user who can communicate mutually, It consists of electronic cameras of each user in whom the animation photography connected with this computer possible [two-way communication] is possible. In the video conference system which is made to display the animation photoed with each user's electronic camera on the display of the computer of a message place, and makes video conferencing possible Said computer is a video conference system characterized by carrying out auto-boot of said program for video conferencing, when it detects that have a program for video conferencing for performing said video conferencing, and said electronic camera was connected possible [two-way communication].

[Claim 2] It is the video conference system of claim 1 with which it has the telecommunication cable which connects the cradle with which said electronic camera is detached and attached, this cradle, and a computer, and said cradle will be characterized by connecting this electronic camera and said telecommunication cable if equipped with said electronic camera.

[Claim 3] Said electronic camera has the communicate mode to which either of the mass storage class modes operated as photography/playback mode, the video conferencing mode as which this electronic camera is operated as a camera for computers, or a card reader is set. Said electronic camera If it detects having connected possible [said computer and two-way communication], it will be automatically set as said communicate mode. Said computer Claim 1 or 2 video conference systems which are characterized by carrying out auto-boot of said program for video conferencing when said set-up communicate mode is video conferencing mode.

[Claim 4] Said computer is claims 1 and 2 or the video conference system of 3 characterized by carrying out auto-boot of said program for video conferencing, and the program for image display, when it detects that have a program for video conferencing, and a program for image display, and said electronic camera was connected possible [two-way communication].

[Claim 5] A communication network is minded. The computer of each user who can communicate mutually, It consists of electronic cameras of each user in whom the animation photography connected with this computer possible [two-way communication] is possible. In the video conference system which is made to display the animation photoed with each user's electronic camera on the display of the computer of a message place, and makes video conferencing possible Said computer has a program for video conferencing for performing said video conferencing. The video conference system characterized by detecting that said electronic camera was connected possible [two-way communication], and operating said program for video conferencing only when the model of this electronic camera is a predetermined model.

[Claim 6] Said predetermined type of electronic camera is the video conference system of claim 5 which is the electronic camera of a manufacturer predetermined [having a function corresponding to the electronic camera which has a function corresponding to said program for video conferencing, or said program for video conferencing and].

[Claim 7] A communication network is minded. The computer of each user who can communicate

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mutually, It consists of electronic cameras of each user in whom the animation photography connected with this computer possible [two-way communication] is possible. In the video conference system which is made to display the animation photoed with each user's electronic camera on the display of the computer of a message place, and makes video conferencing possible It is the video conference system which said computer has a program for video conferencing for performing said video conferencing, and is characterized by this program for video conferencing making said computer perform the function which uses the individual humanity news of the user at the time of the user registration in other programs.

[Claim 8] A program besides the above is the video conference system of claim 7 which is the program for image display started by coincidence at the time of starting of said program for video conferencing.

[Claim 9] A list of the image with which said program for image display is recorded on the record medium in said electronic camera, or the image currently recorded on the record medium in said computer, The function to which coincidence is made to display the menu button which directs to connect with the server which is carrying out various kinds of services on the display of said computer, Claim 4 or 8 video conference systems which are characterized by making said computer perform the function which the image chosen from the list of said image is made to transmit to the server chosen by said menu button.

[Claim 10] Said program for video conferencing is the video conference system of claim 9 characterized by making said computer perform the function which said selected image is made to transmit to a message place, when an image is chosen from a list of said image during a message and image transmission is directed.

[Claim 11] During the video conferencing held while transmitting and receiving the image under image pick-up mutually between self communication equipment and other users' communication equipment The process which is the address book creation approach which relates the image transmitted from other users' communication equipment with registration information, such as the address of other users who perform video conferencing, and records it, and receives and displays an image from other users' communication equipment, The process as which a user inputs the directions which record said image currently displayed, The process which relates the image received based on the directions which record said inputted image with the address information which shows the communication link place of other users under communication link, and records it on a record means,

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the video conference system which is applied to a video conference system, especially holds video conferencing by two or more users through a communication network.
[0002]
[Description of the Prior Art] Connect two or more stations mutually so that a broadcast communication link may be possible, and each station is made to possess an input unit and a display, the station which participates in a meeting by transmission of the meeting demand including the meeting participating station list from a station combines as a group logically, and the teleconference method possible in carrying out the exclusive control which eliminates access to said displays and input units from a station other than a group is shown in the official report of JP,59-154840,A during group formation.
[0003] Moreover, the image receiving set which has the graphic display section which displays the image under transmission by the side of self on one half or some of screen in a mirror image or a normal image is shown in the official report of JP,60-178784,A at the same time it displays the image from the other party.
[0004] Moreover, it has two or more audible-sound input means to input two or more image pick-up means and audible sound which picturize the animation at two or more meeting attendants. In the teleconference which connected two or more meeting unit system which performs transmission of the video data from each means, and audible-sound data through the circuit A discernment means to judge a speaker out of said two or more meeting attendants, and a transmitting means to generate the identification information which shows the speaker judged with this discernment means, and to transmit this identification information through a circuit, A receiving means to receive said identification information from said circuit, and one screen are divided into two or more fields. While displaying a speaker on the predetermined field of said divided screen with an animation based on the video data of the speaker corresponding to the identification information which received with said receiving means the video data at other meeting attendants other than a speaker -- being based -- being concerned -- others -- the teleconference which established a display means to display a meeting attendant on other fields of said divided screen with a still picture is shown in the official report of JP,7-71275,B.
[0005] Moreover, it is possible to hold other users and video conferencing (video conference) through the Internet in recent years. Moreover, the personal computer by the side of a user acquires and displays the list of users in the condition which was registered into the predetermined server on a network and in which two or more communication links are possible, and the system which the partner of whom a user expects is chosen from these lists, and can carry out NetMeeting of a TV phone type is known.
[0006]
[Problem(s) to be Solved by the Invention] However, the teleconference method shown in the official report of JP,59-154840,A is a method which carries out exclusive control which eliminates access from stations other than a group, and had produced the fault that the partner who can hold a teleconference

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could not be chosen easily or the activity of registration of the first stage about a teleconference could not be done easy.

[0007] Moreover, the image receiving set shown in the official report of JP,60-178784,A is equipment which displays the image under transmission from a self side with the image pick-up image of a communications partner during operation of a TV phone at the graphic display section, and had produced the fault that the partner who can carry out a TV phone cannot be chosen easily, or the image which picturizes beforehand and is recorded could not be chosen easily and it could not transmit to a partner.

[0008] Moreover, it is the conference system which displays the image at two or more meeting attendants on 1 screen, specifies a speaker in the teleconference shown in the official report of JP,7-71275,B, and performs the display by the animation to a predetermined field, and the fault that the partner who can hold a teleconference cannot be chosen easily, or the image which picturizes beforehand and is recorded could not be chosen easily and it could not transmit to a partner was produced.

[0009] In case it generally logs in to communication networks, such as the Internet, and actual use is enabled, individual humanity news, such as a user's own name which the user inputted, the address, an approach to pay a use tariff, and a mail address, is recorded on the communication terminal (communication equipment, such as a personal computer, an electronic camera, and a cellular phone) which a predetermined server or predetermined users, such as a provider, own. However, when starting the software for the video conferencing for conventionally talking over the telephone through a network first, said individual humanity news etc. needed to be inputted anew. Therefore, about the user who does not like troublesome actuation, the situation of passing without using without registering with a video conference system in spite of improving the environment where video conferencing can be held with much trouble had arisen. Moreover, although the user tried registration of individual humanity news, since the input of individual humanity news which carries out an a large number setup was mistaken, the fault that a video conference system could not be set as an available condition had been produced.

[0010] Moreover, in the system of above-mentioned NetMeeting, since the number of the user who can be communicated registered into the server with the spread of the Internet had reached the huge amount of thousands of people, the fault that a user could not look for a desired communications partner as a matter of fact had been produced.

[0011] moreover, in the system of above-mentioned NetMeeting Although it is possible to acquire other users' name registered into the specific server, the address, and the propriety information on rough communication link whether other users have started the application software for specific NetMeeting, and to display on a user's personal computer Since information was displayed in the alphabetic character which is hard to recognize a communications partner easily for a user, specifying and choosing a desired communications partner as a matter of fact had produced the fault of being difficult.

[0012] Moreover, since a user was not able to know easily the information on whether it is in a condition with a desired communications partner able to carry out NetMeeting, and two or more status information related with the communication link propriety of a desired communications partner, predicting un-arranging [which is generated after actually carrying out NetMeeting] had produced the fault of being difficult.

[0013] Moreover, conventionally, when transmitting against 1 thru/or two or more images currently picturized and recorded with the electronic camera etc. while carrying out NetMeeting with other users, file management other than the application software for NetMeeting was started to coincidence, the image file of which a user expects transmission was chosen, and transmission was directed. since [however,] he cannot understand the contents of the image only by the file name even if file management carries out a list display for the file name of the drive of the recording apparatus with which the desired image is recorded, or a directory -- a user -- this -- ** -- after specifying the file name of the image considered, the image was perused and checked, and complicated image transmission of directing transmission after that was operated.

[0014] Furthermore, since it was necessary to carry out the above-mentioned processing about two or

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more images to transmit two or more images, when very trouble processing was not carried out, it was in the situation that an image cannot be transmitted.

[0015] This invention was made in view of such a situation, and its complicated actuation is unnecessary. Initial registration at the time of a user being able to participate in video conferencing easily, and starting use of a video conference system first is made easy. In case video conferencing is started, a desired partner is easily made selectable, and it aims at offering the video conference system which an image [finishing / an image pick-up] is chosen easily, and can be transmitted during video conferencing implementation.

[0016]

[Means for Solving the Problem] Invention which relates to this application claim 1 in order to attain said purpose A communication network is minded. The computer of each user who can communicate mutually, It consists of electronic cameras of each user in whom the animation photography connected with this computer possible [two-way communication] is possible. In the video conference system which is made to display the animation photoed with each user's electronic camera on the display of the computer of a message place, and makes video conferencing possible Said computer has a program for video conferencing for performing said video conferencing, and if it detects that said electronic camera was connected possible [two-way communication], it is characterized by carrying out auto-boot of said program for video conferencing.

[0017] That is, if an electronic camera is connected to a computer possible [two-way communication], this computer will start the program for video conferencing automatically, and it will be made to be possible [the video conferencing of it].

[0018] If it has the telecommunication cable which connects the cradle with which said electronic camera is detached and attached, this cradle, and a computer as shown in this application claim 2, and, as for said cradle, it is equipped with said electronic camera, it is characterized by connecting this electronic camera and said telecommunication cable. That is, it is made to be possible [video conferencing] only by equipping a cradle with an electronic camera.

[0019] As shown in this application claim 3, said electronic camera Photography/playback mode, It has the communicate mode to which either of the mass storage class modes operated as the video conferencing mode as which this electronic camera is operated as a camera for computers, or a card reader is set. If it detects that said electronic camera was connected possible [said computer and two-way communication], it will be automatically set as said communicate mode. Said computer When said set-up communicate mode is video conferencing mode, it is characterized by carrying out auto-boot of said program for video conferencing.

[0020] Said computer has a program for video conferencing, and a program for image display, as shown in this application claim 4, and if it detects that said electronic camera was connected possible [two-way communication], it is characterized by carrying out auto-boot of said program for video conferencing, and the program for image display.

[0021] Invention concerning this application claim 5 minds a communication network. The computer of each user who can communicate mutually, It consists of electronic cameras of each user in whom the animation photography connected with this computer possible [two-way communication] is possible. In the video conference system which is made to display the animation photoed with each user's electronic camera on the display of the computer of a message place, and makes video conferencing possible It is characterized by said computer having a program for video conferencing for performing said video conferencing, and detecting that said electronic camera was connected possible [two-way communication], and operating said program for video conferencing, only when the model of this electronic camera is a predetermined model. Said predetermined type of electronic camera has a function corresponding to the electronic camera which has a function corresponding to said program for video conferencing as shown in this application claim 6, or said program for video conferencing, and is characterized by being a predetermined manufacturer's electronic camera. That is, in the case of the predetermined model which can transmit an animation to a computer by the predetermined communicate mode, the electronic camera connected to a computer restricts, and it enables it to start said program for

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video conferencing.

[0022] Invention concerning this application claim 7 minds a communication network. The computer of each user who can communicate mutually, It consists of electronic cameras of each user in whom the animation photography connected with this computer possible [two-way communication] is possible. In the video conference system which is made to display the animation photoed with each user's electronic camera on the display of the computer of a message place, and makes video conferencing possible Said computer has a program for video conferencing for performing said video conferencing, and this program for video conferencing is characterized by making said computer perform the function which uses the individual humanity news of the user at the time of the user registration in other programs. That is, a user does not need to perform user registration anew by the program for video conferencing, and can save time and effort.

[0023] A program besides the above is a program for image display started by coincidence at the time of starting of said program for video conferencing as shown in this application claim 8. Further the program for image display A list of the image currently recorded on the record medium in said electronic camera as shown in this application claim 9, or the image currently recorded on the record medium in said computer, The function to which coincidence is made to display the menu button which directs to connect with the server which is carrying out various kinds of services on the display of said computer, It is characterized by making said computer perform the function which the image chosen from the list of said image is made to transmit to the server chosen by said menu button.

[0024] Said program for video conferencing is characterized by making said computer perform the function which said selected image is made to transmit to a message place, if an image is chosen from a list of said image during a message and image transmission is directed. Thereby, an image can be sent easily [a message place].

[0025] Invention concerning this application claim 11 during the video conferencing held while transmitting and receiving the image under image pick-up mutually between self communication equipment and other users' communication equipment The process which is the address book creation approach which relates the image transmitted from other users' communication equipment with registration information, such as the address of other users who perform video conferencing, and records it, and receives and displays an image from other users' communication equipment, The process as which a user inputs the directions which record said image currently displayed, The process which relates the image received based on the directions which record said inputted image with the address information which shows the communication link place of other users under communication link, and records it on a record means, It is characterized by including the process which associates and displays the address which shows the communication link place of said recorded image and other users.

[0026] That is, an animation to some the still pictures or animations in which a message partner is shown are incorporated, and it enables it to incorporate this during a message at a message partner's address book.

[0027] The process to which invention concerning this application claim 12 is the image transmitting approach of transmitting the image which the user specified during video conferencing to other users' communication equipment, and other users' communication equipment and self communication equipment carry out the message of voice or an image, The process displayed on the display means of self communication equipment as 1 thru/or two or more image menus, The process which chooses the image with which a user wishes to transmit from said image menus during said message, It is characterized by including the process a user instructs transmission of said selected image to be, and the process which transmits said selected image to other communication equipment during said message based on said inputted communicative directions during said message. Thereby, an image can be sent easily [a message place].

[0028] In case invention concerning this application claim 13 starts the video conferencing held while transmitting and receiving the image under image pick-up mutually between self communication equipment and other users' communication equipment It is the method of presentation of the address book which displays in a list the information about the user of the partner who holds video conferencing

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registered beforehand. The process which displays partner information, such as the user's of the message of the user of the name of the user of the partner who holds video conferencing, a name, the address that shows a communication link place, and the partner who communicates or a comment, and a partner's photograph, on the display means of self communication equipment, It is characterized by including the process which acquires the information about the communication link propriety situation of the partner who holds video conferencing from other communication equipment, and the process which relates the communication link propriety situation of the partner who holds said acquired video conferencing with said partner information, and is displayed on said display means. That is, the partner who can talk over the telephone can be easily looked for only by opening one's address book.

[0029] It is characterized by including the process which acquires partner information, such as the user's of the message of the user of the name of the user of the partner who holds said video conferencing as shown in this application claim 14, a name, the address that shows a communication link place, and the partner who communicates or a comment, and a partner's photograph, from other communication equipment through a communication network. The display of said communication link propriety situation is characterized by being the display using a pattern or an alphabetic character, as shown in this application claim 15.

[0030] Invention concerning this application claim 16 in the case of initiation of the video conferencing held while transmitting and receiving the image under image pick-up mutually between self communication equipment and other users' communication equipment The information about the user of the partner who holds video conferencing registered beforehand is shown a list table. It is the setting approach of the communications partner which sets up the partner of a communication link place who holds video conferencing from the shown address book this list table. The process which displays partner information, such as a photograph of the message of the user of the name of the user of the partner who holds video conferencing, a name, the address that shows a communication link place, and the partner who communicates or a comment, and a partner, on the display means of self communication equipment, The process which acquires the information on the communication link propriety situation of the partner who holds video conferencing from other communication equipment, and elects the partner who cannot hold the present video conferencing based on the this acquired communication link propriety situation, The process which relates the communication link propriety situation of the partner who holds said received video conferencing with said partner information, and is displayed on said display means, When the partner as whom a user cannot hold said video conferencing is chosen as an operation partner of video conferencing, it is characterized by including the process which performs the notice which refuses this user's selection to a user. That is, in not being in the condition which a partner can message receive, it is preventing from choosing the partner as a message partner by the address book.

[0031] Invention concerning this application claim 17 in the case of initiation of the video conferencing held while transmitting and receiving the image under image pick-up mutually between self communication equipment and other users' communication equipment The information about the user of the partner who holds video conferencing registered beforehand is shown a list table. It is the setting approach of the communications partner which sets up the partner of a communication link place who holds video conferencing from the shown address book this list table. The process which displays partner information, such as a photograph of the message of the user of the name of the user of the partner who holds video conferencing, a name, the address that shows a communication link place, and the partner who communicates or a comment, and a partner, on the display means of self communication equipment, The process which acquires the information on the communication link propriety situation of the partner who holds video conferencing from other communication equipment, and elects the partner who can hold current video conferencing based on the this acquired communication link propriety situation, The process which relates the communication link propriety situation of the partner who holds said received video conferencing with said partner information, and is displayed on said display means, Only when a partner with a user able to hold said video conferencing is chosen, it is characterized by permitting this selection and including the address of the user of the this chosen partner, and the process

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which starts video conferencing.

[0032]

[Embodiment of the Invention] The gestalt of desirable operation of the video conference system applied to this invention according to an accompanying drawing below is explained.

[0033] Drawing 1 is the whole video conference-system block diagram concerning the operation gestalt of this invention. As shown in drawing 1, this video conference system Two or more users' computers (henceforth "User PC") 100 and 100, and --, The digital cameras (electronic camera) 120 and 120 in which the animation photography connected to each user PC100 through a cradle 110 is possible, and --, The server 130 for video conferencing (henceforth "VC server"), and the management server 140 which manages a user's individual humanity news etc., It consists of communication networks of the Internet 150 grade which connects these user PC100, the VC server 130, and management server 140 grade.

[0034] User PC100 can transmit and receive information, such as an image and voice, through the Internet 150 while being able to transmit and receive information on an image etc. through a cradle 110 and the USB cable 122 from a digital camera 120.

[0035] Moreover, the program for image display for indicating by list the image recorded on the record medium in a digital camera 120 and the image recorded on the record medium in user PC100 and the program for video conferencing for holding video conferencing concerning this invention are installed in this user PC100. In addition, about the detail of the program for image display, and the program for video conferencing, it mentions later.

[0036] A cradle 110 is connected with user PC100 and the telecommunication cable (the gestalt of this operation USB cable) 112 in which two-way communication is possible, and DC power supply are supplied from AC adapter 114.

[0037] A cradle 110 has crevice 110A to which it shows a digital camera 120 at the time of camera attachment and detachment, and cradle connector 110B is prepared in the base of this crevice 110A. And if crevice 110A of a cradle 110 is equipped with a digital camera 120, the camera connector (not shown) which is interlocked with the wearing actuation and prepared in the camera base will be connected to cradle connector 110B. The charge cell in a camera is charged based on the DC power supply which a cradle 110 is equipped with a digital camera 120, and are supplied from AC adapter 114 when a camera power source is OFF, and when a camera power source is ON, it is used, giving priority over the charge cell in a camera to the DC power supply supplied from AC adapter 114.

[0038] The digital camera 120 has the photography mode which photos a still picture or an animation and is recorded on a memory card, the playback mode which reads the image recorded on the memory card and is displayed on the liquid crystal display monitor of a digital camera, and the communicate mode for transmitting and receiving information on user PC100, an image, etc.

[0039] Either is chosen by actuation of a mode selection lever in which a digital camera 120 does not illustrate said photography mode and playback mode. On the other hand, priority will be automatically given over photography/playback mode, and the above-mentioned communicate mode will be set up, if USB connection of the digital camera 120 is made with user PC100.

[0040] That is, a cradle 110 is equipped with a digital camera 120, the power source of user PC100 and a digital camera 120 is in the condition of ON, and when user PC100 and a cradle 110 are connected by the USB cable 112, a digital camera 120 makes the mode of operation of a camera the communicate mode (USB mode) automatically. In addition, the digital camera 120 has distinguished USB connection / connectionless one with user PC100 by carrying out the monitor of pull-up-on / the OFF of a specific USB terminal.

[0041] Moreover, a digital camera 120 is served as a device of two kinds of different device class by the USB established state of the body of a camera when USB connection is made. That is, there are USB mass storage class mode as which a digital camera 120 is operated as a card reader, and video conferencing mode operated as a PC camera as above-mentioned USB mode, and it is beforehand set as one of the modes by the setup of a camera. It is being begun suitably to read the image recorded on the memory card in a camera when a USB setup was in USB mass storage class mode, and transmits, and when a USB setup is in video conferencing mode, the animation under photography is transmitted to

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real time so that video conferencing may be possible.

[0042] On the other hand, if a cradle 110 is equipped with a digital camera 120, user PC100 makes connection of a digital camera 120 (Plug & Play a function is used), when the communicate mode of a digital camera 120 is USB mass storage class mode, will start said program for image display automatically, and, in the case of video conferencing mode, will start automatically said program for image display, and the program for video conferencing. The function which detects connection of a digital camera 120 automatically incorporates the device driver which detects connection of a digital camera 120 automatically after the time of system program starting of user PC100, or starting, and is Plug & Play of communication system. An event is supervised. A device driver's recognition of connection of a digital camera 120 starts a required program according to the processing mode of a digital camera 120. In addition, in this example, although user PC100 was connected with the cradle 110 using the telecommunication cable (USB cable) 112, a topology is not limited to a cable but may connect both using a radio interface.

[0043] Next, the case where the program for image display of user PC100 starts is explained.

[0044] In this case, the viewer window 222 shown in drawing 2 is displayed on the display of user PC100. In this viewer window 222, for example, photography image data currently recorded on the memory card of a digital camera 120 and identification information of incidental information, The file list 224 with which the identification information of the folder name and file name of the preservation image data currently recorded on the database of user PC100 and incidental information is indicated, The list display of the contraction image (identification information by the thumbnail image) 226 of each image currently recorded in the folder the user instructed perusal to be, Various kinds of menu buttons 228 which direct to connect with the server (not shown) which offers various kinds of services, such as print service and image preservation service, are displayed on coincidence.

[0045] A user chooses desired 1 thru/or two or more desired images from a list of the file name currently displayed on the viewer window 222, or the contraction image 226 using the input means represented by a mouse or the keyboard. Only by pushing the menu buttons 228 (for example, a print service carbon button, a photograph public presentation carbon button, a photo contest contribution carbon button, etc.) which direct the connection and transmission to various kinds of servers Upload of the image file for transmission of the print service information on a desired image, or the photograph public presentation service on the Internet and photo contest contribution or a voice file is attained.

[0046] Moreover, when a "user registration carbon button" (un-illustrating) is pushed for the first time after the above-mentioned program for image display was installed in user PC100, user PC100 accesses the management server 140 shown in drawing 1, and takes the necessary procedure for user registration. Namely, a user registers in the user registration page of the management server 140 by inputting individual humanity news, such as a name, the address, a zip code, the E-mail address, the model of owned electronic camera, sex, the telephone number, a birth date, an occupation, and a password. A user's identification information (user ID) is passed in exchange for this registration, and it attests by collating user ID henceforth at the time of access of the management server 140. The management server 140 manages a user's individual humanity news using user ID. Thereby, a menu button 228, banner advertising, etc. which were customized for every user can be distributed.

[0047] Next, the video conferencing program installed in user PC100 is explained.

[0048] This video conferencing program is Plug & Play, when USB connection of the digital camera 120 is made with user PC100 in video conferencing mode, as the users linked to the Internet can be made to carry out video conferencing and they mentioned above using the video conferencing mode of a digital camera 120. When it starts automatically by the function and said program for image display has not started, the program for image display is also started to coincidence.

[0049] In addition, only when USB connection of the camera of video conferencing mode loading is made, actuation of a video conferencing program is attained. That is, actuation becomes possible, only when Product ID, Manufacturer ID, etc. are read in the digital camera by which USB connection was made, it judges whether the model of the digital camera has a function corresponding to said program for video conferencing and it is judged as the digital camera which has a function corresponding to said

program for video conferencing. Furthermore, in addition to the above-mentioned function, only when judged as a predetermined manufacturer's digital camera, it may be made to make actuation possible.

[0050] If the above-mentioned video conferencing program starts, as shown in drawing 3 , it will become operational, where the window 300 for video conferencing (henceforth "VC window") was opened by the viewer window 222 and coincidence as a child window and both windows are opened to the display of user PC100. Although later mentioned in detail about the configuration of the VC window 300, and its operating instructions, if it outlines, when the VC window 300 will open, the VC server 130 shown in drawing 1 is not accessed, but it has become under the log out. In this log out, only its own animation is displayed and the VC window 300 can be closed with the closed carbon button 314. After closing the VC window 300, the VC window 300 can be again opened by pushing VC opening carbon button on the viewer window 222 (un-illustrating). Moreover, an address book can be opened [be / it / under / log out and log in / not asking] while opening the VC window 300.

[0051] Here, if the log in carbon button 316 in the VC window 300 is pushed, it will become under a log in and waiting. Namely, user PC100 accesses the VC server 130, transmits user ID etc., and registers it as a user under a log in and waiting in the VC server 130 based on the user ID which received.

[0052] After the above-mentioned user ID's installing in user PC100 the program for image display mentioned above, when user registration is performed, the user ID given from the management server 140 is used. Therefore, a user does not need to take the necessary procedure for user registration, after installing a video conferencing program in user PC100. In addition, when a log in carbon button is pushed and there is no user ID, a dialog indication of the warning message to which it urges carrying out user registration from the program for image display is given.

[0053] Moreover, if the address of a message place is specified, its address is specified from push or a phase hand in the message initiation carbon button 320 and a message initiation carbon button is pushed during the above-mentioned log in and waiting, it will become under a log in / message. In addition, as for the condition under waiting, or the condition under message, the user under log in was notified to the VC server 130, and it has managed whether the VC server 130 has a user under log in in which condition. Moreover, if the log out carbon button 318 is pushed during a log in and waiting, or a log in / message, it will become under a log out and registration of the user by whom the log out carbon button 318 was pushed will be deleted in the VC server 130.

[0054] Furthermore, if the message cutting carbon button 322 is pushed during a log in / message, it will become under a log in and waiting, and the state transition of the management of a user will be carried out during a log in and waiting out of a log in / message in the VC server 130.

[0055] Drawing 4 is the enlarged drawing of the VC window 300. The VC window 300 has the phase manual drawing display 302 which displays the animation of the partner under message, and the self-animation display section 304 as which its own animation currently picturized with the digital camera 120 is displayed, and these animation display sections 302 and 304 are arranged together with right and left. Although each of a partner's animation display sizes and their animation display sizes is made into the fixed size (for example, 160x120 dots), you may constitute from this example so that it can carry out adjustable [of each display size].

[0056] The functional name of the VC window 300 and the information on a module version are displayed on the title bar 306 of a window, and a minimize button 308, a maximize button 310, and the closing carbon button 312 are formed in title bar 306 right end. If the closing carbon button 312 is equivalent to the closed carbon button 314 arranged at the window lower right and these carbon buttons 312 or 314 is pushed, processing which closes the VC window 300 will be performed. The dimmer (grayout display) of the maximize button 310 is carried out, and it receives processing of maximization. In addition, a minimize button 308 functions effectively, and if this carbon button 308 is pushed, the VC window 300 will be minimized.

[0057] In the bottom of a title bar 306, manual operation buttons, such as the log in carbon button 316, the log out carbon button 318, the message initiation carbon button 320, and the message cutting carbon button 322, and the message place input box 324 are established.

[0058] When the VC window 300 is opened, a network is not accessed, but its animation is displayed.

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[to whom the phase manual drawing display 302 is displayed, and the blank or the predetermined icon (for example, icon which designed a person's silhouette) is picturizing it with the digital camera 120 in the self-animation display section 304]

[0059] By the depression of the log in carbon button 316, it connects with the VC server 130 and ILS (Internet Location Server) registration is performed. The user of a dialup connection requires a telephone at this time, and accesses the Internet. During a log in, an indicator (icon) 325 is displayed on the window upper left, and it specifies that it is [ILS] under log in. It can restrict during a log in and initiation/termination of a message can be repeated. It is deleted from ILS by log out.

[0060] A message partner's address is inputted into the message place input box 324 after a log in. For example, the direct input of a direct input or the partner mail address (for example, "fgate@test.fujifilm.co.jp") can be carried out for the IP address (for example, 133.170.49.153) of the computer which serves as a message partner. Moreover, a partner mail address is automatically inputted in the message place input box 324 by clicking the address book opening carbon button 326 prepared in the right of the message place input box 324, opening the window screen (referring to drawing 5) of an address book, and choosing a partner from the lists. About the detail of an address book, it mentions later.

[0061] At the time of VC window 300 starting, if it will be inputted by the address of the partner who talked over the telephone last time in the message place input box 324 as a default and is the call to the same partner, it is a "message initiation carbon button". What is necessary is just to click 320. [0062] When an IP address is changed for every connection to a provider in the Internet user by the usual dialup connection, there are many people who do not know the symptom of their IP address. [present] Therefore, in almost all cases, it is assumed that it is used in a mail address input. Since the thing at the time of the user registration of the program for image display is reflected automatically, a mail address cannot perform the message by this system, unless it is performing user registration correctly to the management server 140.

[0063] If the message initiation carbon button 320 is pushed after inputting the address into the message place input box 324, a message call is performed to the address of the message partner concerned, and a message will be started if a partner responds. If there is no response after message call initiation and into predetermined time, the message box which notifies of the purport which is "with no response" on the display of user PC100 will be displayed.

[0064] The image in which the partner is seen off by the other party if a message is established according to a message is displayed on the phase manual drawing display 302. About audio input and output, although the microphone and loudspeaker attached to user PC100 have realized, a built-in microphone and a built-in (or external) loudspeaker may be used for a digital camera 120.

[0065] In the VC window 300, the still picture save carbon button 328 is formed in the lower part of the phase manual drawing display 302. If the still picture save carbon button 328 is pushed while displaying the message partner, animation display can stop and a picture of a snap shot dump (still picture) can be taken. Then, a movie display is resumed and the dialog (un-illustrating) which asks the art of a static image is displayed. The selection candidate [still picture / which was incorporated] of "copying to a clipboard", "sticking on the partner image column of an address book", etc. can be shown in this dialog, and a user can choose processing [which] now as it.

[0066] When a user chooses "it sticks on the partner image column of an address book", 1 coma image (still picture) of an all busy partner is related with a partner's address with which it corresponds in an address book, and is saved in user PC100. Thereby, a partner's photograph is henceforth displayed in the VC window 300 the time of opening an address book, and under message. What is necessary is not to limit the approach of correlation to this, but to relate it with a certain information which can specify users, such as user ID published by user registration, and just to record it, although the image captured by the still picture save function is related with a partner's address and recorded in this example.

[0067] Moreover, in the VC window 300, under the phase manual drawing display 302, the message partner information-display section 330 is formed, and the self-information display 332 and the message input box 334 are established in the bottom of the self-animation display section 304. The message

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partner information-display section 330 is area which displays the information about the partner under message, and a partner's address, a name, a comment, the message written by the partner, a partner image (80x60 dots), etc. are displayed on this display. The mail address which carried out user registration is displayed, and a partner's address displayed here serves as a handle of message partner specification [this]. The name which carried out user registration of the name is displayed. Comments are the contents as which he filled in the partner, and the contents of a comment appended to the address book as information about a partner are displayed. The contents of a partner's message input box are displayed for the contents as which the other party inputted the message into the message input box.

[0068] The image (still picture) stuck on an address book is displayed on the display 336 of a partner image. When there is no stick lump of a partner image in an address book, a blank or predetermined icons (a person's silhouette icon etc.) are displayed.

[0069] The self-information display 332 prepared in the bottom of the self-animation display section 304 is area which displays the information about its contents of registration, and the address and a name (what has all the same as the contents of user registration) are displayed. Since a setup of the information about itself incorporates user registration information automatically and is set up, a oneself information setup of a user is omitted.

[0070] The message input box 334 is a column which inputs the alphabetic character displayed on the screen of the other party when the other party looks through a communications partner by the address book, and the message which he inputted will be displayed on the communications-partner information-display section of the connection place list top of partner's address books, or a partner's VC window.

[0071] As shown in drawing 4 , the option setting column 338 is formed in a part for the lower part of the VC window 300, and the change setting check box 340 and the network band selection box 342 of automatic answering/manual answering are displayed on this option setting column.

[0072] The change setting check box 340 of automatic answering/manual answering is a user interface which chooses whether an arrival-of-the-mail response is carried out automatically, when a message call comes from a partner. When a check is removed, "manual answering" was chosen and a message call comes from a partner, the dialog showing the call having come pops up, it can receive or refusal or a user can choose each time. that time of a message call coming from a partner, when the check was put in and "automatic answering" was chosen on the other hand -- a dialog -- nothing -- ************.

[0073] Downward Mark Misumi () of network band selection box 342 right end If it clicks, a drop down list (pull down menu) will appear. Selection candidates, such as a modem 28800bps or more, and ISDN, LAN, are displayed on a drop down list. A user chooses the thing nearest to the bandwidth of his network environment from the list of drop down lists.

[0074] As for drawing 5 , the example of the address book window 400 is shown. If the explained address book opening carbon button 326 which was explained by drawing 4 is pushed, an address book will be opened and the address book window 400 will be displayed on the display of user PC100. As shown in drawing 5 , the address book window 400 has various kinds of manual operation buttons 404, 406, 408, 410, 412, and 414 with the display (henceforth a phase hand list display) 402 which indicates the phase hand list by list.

[0075] The contents displayed on the information-display section 330 of the message partner who explained by drawing 4 serve as a record of one affair for every everybody, and the list of the record is displayed on the phase hand list display 402. If there is much number of cases (registration number to an address book) of a record, while displaying in the range which can be displayed, it is constituted so that modification for a display may be enabled with a scroll bar 416. The alphabetical order of a name or the address, the order of a registration date to an address book, the order of operating frequency, the order of the status of the display ranking of a record, etc. are possible for setting up freely.

[0076] Moreover, at the phase hand list display 402, the status of whether each is opening the current VC window is displayed by icons 420, 422, and 424 about each phase hand on a list. User PC100 accesses the VC server 130 and this is realized by acquiring the information on ILS registration, when an address book is opened. User PC100 displays the status only about each phase hand who is asked to the VC server 130 about the phase hand registered into the address book and by whom the address book

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is registered among those by whom ILS registration is done.

[0077] The status is expressed by the following three kinds. Namely, ** off-line (condition of not opening VC window) and ** online (someone under a message) ** online (it is not talking over the telephone) They are three kinds. In drawing 5 , a sign 420 shows an off-line icon, a sign 422 shows an on-line (under the message with someone) icon, and a sign 424 shows an on-line (it is not talking over the telephone) icon.

[0078] Neither the partner in off-line nor the partner who is already telephoning to someone even if it is among online can choose as message partners, but restricts to the partner of an online (it is not talking over the telephone) condition, and is in the condition in which a message receptionist is possible. Therefore, control of a selectional restriction is performed so that the partner concerned on an address book cannot be chosen as a message partner on the user interface of an address book, if a partner is not in the condition in which a message receptionist is possible.

[0079] If one in which a message receptionist is possible in in a list of partners' record is clicked, it is made highlighting (the cursor frame 430 is displayed) and the selection decision carbon button 404 is pushed after that, the address of the partner concerning the record concerned will go into the message place input box 324 explained by drawing 4 . Also when the record in a list is double-clicked, it considers as the same effectiveness as depression processing of the selection decision carbon button 404.

[0080] About a partner's record which cannot be chosen, even if it pushes the selection decision carbon button 404 after highlighting, processing which writes the address in the message place input box 324 is not performed, but processing of displaying the dialog of the warning message of the purport which cannot be chosen on a computer screen is performed.

[0081] Each phase hand status on a list expresses the condition at the time of an address book being opened. By the depression of the renewal carbon button 406 of the status, it can ask again the VC server 130 about all phase hands, and a status display can be updated.

[0082] In the phase hand list display 402, since it was made the configuration equipped with the display 440, the partner photograph display 442, and the status display section 444 of partner information for every phase hand, the status can be easily grasped with partner information.

[0083] Moreover, the contents of the address book can be edited by operating the additional carbon button 408, the correction carbon button 410, and the deletion carbon button 412 of the address book window 400. If the depression of the additional carbon button 408 is carried out, the form which registers a new phase hand will be displayed. An example of form is shown in drawing 6 . The name column 502, the address column 504, comment field 506, and the photograph pasting column (partner image column) 508 are formed in form 500.

[0084] A partner's name is inputted into the name column 502. Since the contents inputted here are what is saved in the interior of user PC100 as local information in its own computer, anything, it is good and a partner is not related to the name which carried out user registration to the management server 140. It is necessary to input the mail address to which the partner did user registration of the address column 504 to the management server 140. The comment about a partner can be inputted into comment field 506. The contents indicated to comment field 506 may be saved as local information in their own computer, and what kind of contents are sufficient as them, and they are not related to the message which the partner has set up by himself. since, as for the photograph pasting column 508, there is no partner image in the record at the time of an addition as an initial state -- the icon display of people's silhouette -- it carries out. A partner's image can be captured to an address book by pushing the still picture save carbon button 328 during a message as drawing 4 explained.

[0085] A record will be added, if a name and the address are inputted into the additional form 500 shown in drawing 6 at least and the O.K. carbon button 510 is pushed. When Cancel button 512 is pushed before pushing the O.K. carbon button 510, creation processing of a record is canceled.

[0086] Moreover, in the address book window 400 shown in drawing 5 , if the depression of the correction carbon button 410 is carried out after choosing the record for correction, about the record concerning the selection concerned, the same dialog is displayed and the written contents, such as a

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partner's name, the address, and the comment, can be changed as drawing 6 explained. In deleting the record registered into the address book, after choosing the record for deletion from the lists shown in drawing 5 , actuation which clicks the deletion carbon button 412 is performed. If the check dialog by the message is displayed on the screen of user PC100 (the O.K. carbon button and a Cancel button displayed with the message "whether I may delete") and a user inputs directions of Activation O.K. following the depression of the deletion carbon button 412, processing which deletes the record concerned will be performed.

[0087] An address book is closed by pushing the closed carbon button 414 prepared in the lower right of the address book window 400, or the closing carbon button 442 of title bar 440 right end. In addition, in this example, if the address book window 400 is not closed, the VC window 300 explained by drawing 4 can be operated no longer.

[0088] Furthermore, the address book of this example has an automatic registration function, and when it is telephoning [be / it] to the partner who is not in an address book also including the thing resulting from the program termination for image display, or VC window 300 termination at the time of message termination, the dialog which asks whether register to an address book is displayed. A user's selection of "YES (O.K.)" displays the additional dialog of a record which was explained by drawing 6 . If the address of the partner who was talking over the telephone and which he was is posted with a default in the additional dialog displayed at this time and still picture save is performed during the message, that image will also be posted to the photograph pasting column.

[0089] Next, mutual actuation of the viewer window 222 and the VC window 300 is explained. As shown in drawing 7 , where both are opened, it is operational respectively in the viewer window 222 and the VC window 300. If one or more contraction images 226 on the viewer window 222 (thumbnail) are chosen during video conferencing and VC file transfer carbon button 280 is clicked, the image file concerning the selection concerned will be transmitted to the phase hand under message. Moreover, a user interface with which the image file concerning the selection concerned is transmitted to a partner is also possible by drags and drops the contraction image 226 chosen on the viewer window 222 to the phase manual drawing display 302 of the VC window 300.

[0090] The advance dialog of a file is displayed on the user PC of the other party (receiving side) at the time of carrying out VC file transfer during reception, and the folder which includes the reception file concerned at the time of the completion of a transfer will be in a selection condition automatically. Consequently, in the viewer window of the other party, the thumbnail image of the reception file concerned is displayed on a list display. The other party which received the file can check the contents of the reception file by choosing the thumbnail image of a reception file if needed.

[0091] In addition, various kinds of files can be transmitted to a message partner during video conferencing with the operating procedure of an image file transfer of a still picture, and the same procedure by displaying the icon of an animation file, the icon of a voice file, the icon of a text file, etc. on the list display of not only the image file of a still picture but the viewer window 222.

[0092] When the VC window 300 is open at the time of closing of the viewer window 222, the post process of the viewer window 222 is followed and the VC window 300 is closed automatically. In case the VC window 300 is closed by viewer window 222 termination, when it is in the condition under message, processing which cuts connection compulsorily is performed.

[0093]

[Effect of the Invention] According to this invention, only by connecting an electronic camera to a computer (a cradle being equipped), as explained above, since it was made for the program for video conferencing to start automatically, complicated actuation is unnecessary and a user can participate in video conferencing easily. Moreover, since the individual humanity news of the user at the time of the user registration in other programs was used by the program for video conferencing, it is not necessary to perform user registration anew, and time and effort can be saved.

[0094] Moreover, only by opening one's address book, the partner who can talk over the telephone can be looked for easily, and an image can be further sent easily [a message place] during video conferencing implementation. Furthermore, during a message, an animation to some the still pictures or

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animations in which a message partner is shown can be incorporated, and this can be incorporated again at a message partner's address book.

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* NOTICES *

1.This document has been translated by computer. So the translation may not reflect the original precisely.
2.**** shows the word which can not be translated.
3.In the drawings, any words are not translated.

TECHNICAL FIELD

[Field of the Invention] This invention relates to the video conference system which is applied to a video conference system, especially holds video conferencing by two or more users through a communication network.

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* NOTICES *

PRIOR ART

[Description of the Prior Art] Connect two or more stations mutually so that a broadcast communication link may be possible, and each station is made to possess an input unit and a display, the station which participates in a meeting by transmission of the meeting demand including the meeting participating station list from a station combines as a group logically, and the teleconference method possible in carrying out the exclusive control which eliminates access to said displays and input units from a station other than a group is shown in the official report of JP,59-154840,A during group formation.

[0003] Moreover, the image receiving set which has the graphic display section which displays the image under transmission by the side of self on one half or some of screen in a mirror image or a normal image is shown in the official report of JP,60-178784,A at the same time it displays the image from the other party.

[0004] Moreover, it has two or more audible-sound input means to input two or more image pick-up means and audible sound which picturize the animation at two or more meeting attendants, and mind a circuit for the meeting unit system which performs transmission of the video data from each means, and audible-sound data. A discernment means to judge a speaker out of said two or more meeting attendants in the teleconference connected [two or more], A transmitting means to generate the identification information which shows the speaker judged with this discernment means, and to transmit this identification information through a circuit, A receiving means to receive said identification information from said circuit, and one screen are divided into two or more fields. While displaying a speaker on the predetermined field of said divided screen with an animation based on the video data of the speaker corresponding to the identification information which received with said receiving means the video data at other meeting attendants other than a speaker -- being based -- being concerned -- others -- the teleconference which established a display means to display a meeting attendant on other fields of said divided screen with a still picture is shown in the official report of JP,7-71275,B.

[0005] Moreover, it is possible to hold other users and video conferencing (video conference) through the Internet in recent years. Moreover, the personal computer by the side of a user acquires and displays the list of users in the condition which was registered into the predetermined server on a network and in which two or more communication links are possible, and the system which the partner of whom a user expects is chosen from these lists, and can carry out NetMeeting of a TV phone type is known.

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JAPANESE [JP,2002-238040,A]

CLAIMS DETAILED DESCRIPTION TECHNICAL FIELD PRIOR ART EFFECT OF THE INVENTION TECHNICAL PROBLEM MEANS DESCRIPTION OF DRAWINGS DRAWINGS

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JAPANESE [JP,2002-238040,A]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] The whole video conference-system block diagram concerning the operation gestalt of this invention
[Drawing 2] Drawing showing an example of the GUI screen of the program for image display
[Drawing 3] Drawing showing signs that the window for video conferencing (VC window) was opened by a viewer window and coincidence
[Drawing 4] The enlarged drawing of VC window in this operation gestalt
[Drawing 5] Drawing showing the example of a screen of an address book window
[Drawing 6] Drawing showing an example of the record addition form of an address book
[Drawing 7] The explanatory view used in order to explain mutual actuation of a viewer window and VC window
[Description of Notations]
the 100 -- user PC, a 112 -- telecommunication cable, and 120 -- a digital camera, a 130 --VC server, a 140 -- management server, and 150 -- the Internet, a 222 -- viewer window, a 226 -- contraction image, and 228 -- a menu button, a 280 --VC file transfer carbon button, the window for [300 --] video conferencing (VC), and 326 -- an address book opening carbon button, a 328 -- still picture save carbon button, a 400 -- address book window, and 402 -- a phase hand list display, a 420,422,424 -- icon, and the 444 -- status display section

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